



(19)

(11) Publication number: 60100046 A

Generated Document.

## PATENT ABSTRACTS OF JAPAN

(21) Application number: 58207821

(51) Int'l. Cl.: G01N 27/68

(22) Application date: 04.11.83

(30) Priority:

(43) Date of application publication: 03.06.85

(71) Applicant: NGK SPARK PLUG CO LTD

(84) Designated contracting states:

(72) Inventor: MAEDA SHOJI

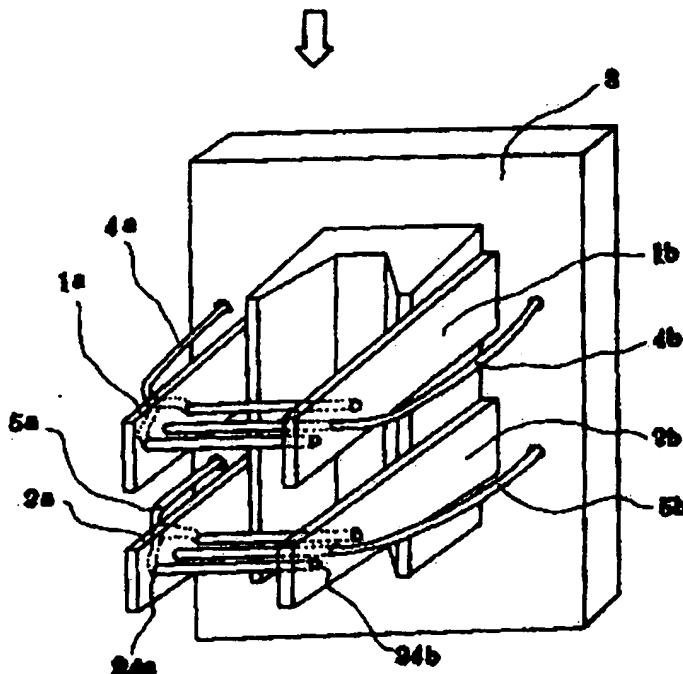
(74) Representative:

**(54) DETECTOR FOR  
PARTICULATE  
MATERIAL IN EXHAUST  
GAS**

## (57) Abstract:

PURPOSE: To obtain a detector capable of functioning accurately for a long time by supporting at least a measuring electrode with a ceramic insulator with a heat generating body buried thereinto among a discharge electrode and the measuring electrode.

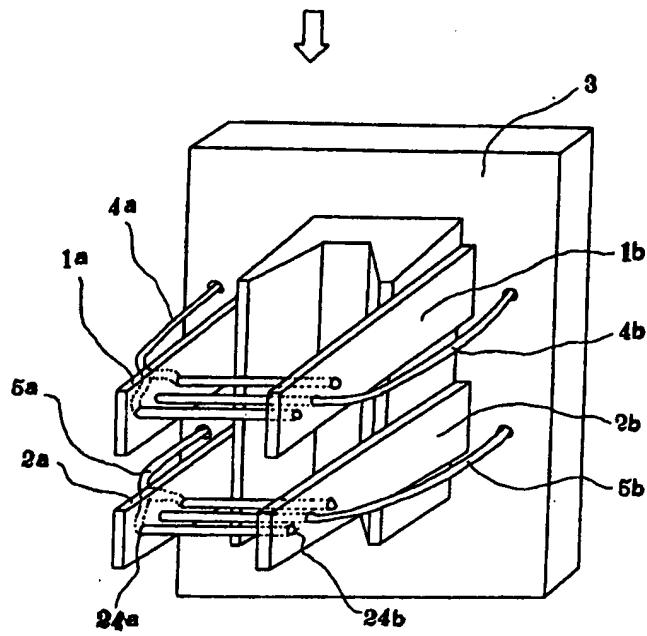
CONSTITUTION: A device is mounted to an exhaust tube for an exhaust gas to flow in the direction of the arrow. Insulators 1a and 1b on the upstream side of an exhaust gas passage support a discharge electrode comprising an ground pole 4a and a negative high voltage electrode 4b while ceramic insulators 2a and 2b are fixed separately on a flange 3 on the downstream side thereof. A negative DC voltage is applied to the negative high voltage electrode 4b to charge particulate material in the exhaust gas negaitvely. On the other hand, the ceramic insulators 2a and 2b has a heat generating body therein and support a measuring electrode comprising a ground pole 5a and a positive low voltage electrode 5b to form a electrostatic field between the measuring electrode and the ground pole 5a, where the particulate material charged negatively is deflected to the positive low voltage electrode 5b



high in the potential. Thus, an ion current opposite in the direction to it flows to allow the detection of changes in the current proportional to the number of the particulate material.

COPYRIGHT: (C)1985,JPO&Japio

第1図



第2図

